Sanitized Copy Approved for Release 2011/09/14: CIA-RDP80-00809A000600380712-9

CONFIDENTIAL CLASSIFICATION CENTRAL INTELLIGENCE AGENCY REPORT

INFORMATION FROM

FOREIGN DOCUMENTS OR RADIO BROADCASTS

CD NO.

COUNTRY

USSR

Book

DATE OF

INFORMATION

SUBJECT

Scientific - Physics, quantum mechanics

HOW

٢

DATE DIST. J Apr 1951

1949

PUBLISHED

WHERE **PUBLISHED**

Moscow/Leningrad

NO. OF PAGES 2

DATE

PUBLISHED

1949

SUPPLEMENT TO

LANGUAGE

Russian

REPORT NO.

DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENS THE UNITED STATES WITHIN THE BEARING OF ESPIONAGE ACT S .C. 31 AND 32, AS ABENDED. ITS TRANSMISSION OR THE REVELATION TEX CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PRO TED BY LAW. REPRODUCTION OF THIS FORM IS PROHIBITED.

Literature

TABLE OF CONTENTS

XI.

THIS IS UNEVALUATED INFORMATION

SOURCE

Osnovy Kvantovov Mekhaniki, State Press for Technical-Theoretical

50X1-HUM

50X1-HUM

TABLE OF CONTENTS FOR D. I. BLOKHINTSEV'S BOOK, "FUNDAMENTALS OF QUANTUM MECHANICS"

The book, Osnovy Kvantovoy Mekhaniki, second edition revised, represents a series of lectures given at Moscow State University imeni Icmonosov. Its editor is S. G. Suvorov; technical editor, S. N. Akhlamov. Assistance is acknowledged from S. I. Drabnika, M. A. Markov, A. A. Sokolov, Ye. A. Feynberg, and student physicists at the university.7

I. Fundamentals of the Quantum Theory 42 Fundamentals of Quantum Mechanics 78 Expression of Mechanical Quantities by Operators 109 Time Variation of State TV. 120 V. Time Variation of Mechanical Quantities The Connection With Classical Mechanics and Optics 128 VI. 140 Fundamentals of the Theory of Representations 164 Microparticles Moving in a Potential-Force Field 218 Charged Particles Moving in an Electromagnetic Field 227

X. Natural (Eigen) Mechanical Moment and Spin of Electrons

Simplest Assumptions in the Theory of Perturbations

258

Theory of Perturbations

-1-CONFIDENTIAL

CLASSIFICATION DISTRIBUTION X NAVY NSRB STATE ARMY

CONFIDENTIAL

50X1-HUM

	Page
Perturbation Theory for Continuous Spectra; Collisions	294
Theory of Quantum Transitions	326
Radiation, Absorption, Scattering of Light by Atomic Systems	336
Passage of Particles Through Potential Barriers	379
Many-Body Problem	403
Simplest Application of the Theory of Many Moving Bodies	419
Systems of Identical Particles	443
Secondary Quantization and Quantum Statistics	463
Many-Electron Atoms	481
Formation of Molecules	509
Magnetic Phenomena	530
Formal Scheme of Quantum Mechanics; Limits of	
Applicability of Quantum Mechanics; Certain	538
24.00	583
	Collisions Theory of Quantum Transitions Radiation, Absorption, Scattering of Light by Atomic Systems Passage of Particles Through Potential Barriers Many-Body Problem Simplest Application of the Theory of Many Moving Bodies Systems of Identical Particles Secondary Quantization and Quantum Statistics Many-Electron Atoms Formation of Molecules Magnetic Phenomena Formal Scheme of Quantum Mechanics; Limits of Applicability of Quantum Mechanics; Certain Gnosiological Problems

- E N D -

- 2 -

CONFIDENTIAL

CONFIDENTIAL